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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,150

06/16/2006

Tae-Gwan Eom

JIN 101NP

2566

23995

7590

02/18/2009

RABIN & Berdo, PC

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SUITE 500

WASHINGTON, DC 20005

EXAMINER

SCHAPER, MICHAEL T

ART UNIT

PAPER NUMBER

3775

MAIL DATE

DELIVERY MODE

02/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,150	Applicant(s) EOM ET AL.	
	Examiner MICHAEL SCHAPER	Art Unit 3775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6-16-2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8-24-06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because of the use of an implied phrase "**a screw type fixture is disclosed**" (Abstract, line 1). Correction is required.

See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. **It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.**

The disclosure is objected to because there are many typographical errors within it, some of them being the following:

In <1>, line 9, "**fixturethat**" should read "fixture that";

In <3>, line 2, "**boneis**" should read "bone is".

Many more informalities appear in the body of the disclosure. Appropriate correction is required.

Claim Rejections - 35 USC § 101

Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims recite part of the human body in combination with the device, namely the limitations:

- “protruding outside the bone tissue”** (claim 1, line 2);
- “when implanted in the bone tissue”** (claim 1, lines 2-3);
- “placed in the bone tissue”** (claim 1, line 3);
- “installed in cortical bone”** (claim 1, line 4);
- “installed in cancellous bone”** (claim 1, lines 4-5);
- “protruding outside the bone tissue”** (claim 2, line 2);
- “when implanted in the bone tissue”** (claim 2, lines 2-3);
- “placed in the bone tissue”** (claim 2, line 3);
- “installed in cortical bone”** (claim 2, line 4); and
- “installed in cancellous bone”** (claim 2, lines 4-5).

It has been held that a claim directed to or including within its scope, a human being will not be considered to be patentable subject matter under 35 U.S.C. 101. The grant of limited, but exclusive property right in a human being is prohibited by the constitution. *In re Wakefield*, 422 F.2d 897, 164 USPQ 636 (CCPA 1970). For examination purposes, all claims will be considered as if such limitations involving the combination with a human were not present.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Bono et al. (US 6129730).

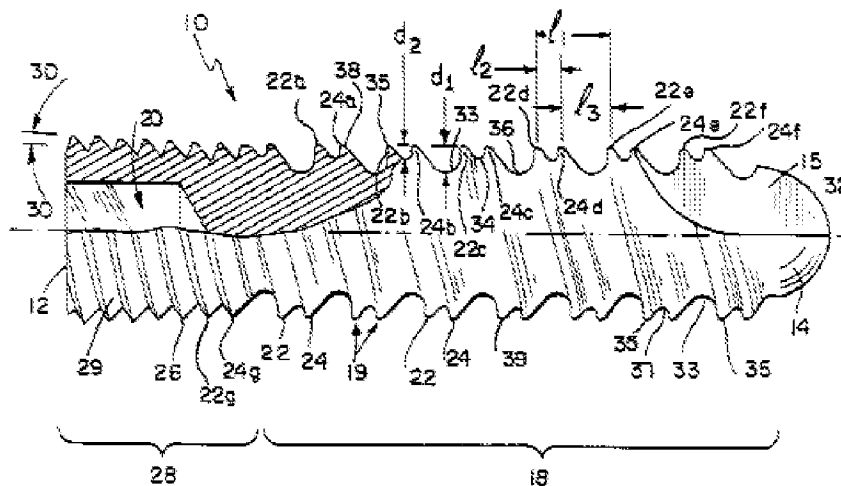


FIG. 4

Bono discloses a fixture (FIG. 4) with an uppermost part (28) and body part (18), the body part comprising a cortical bone coupling part (length along 22a-d, 24a-d), cancellous bone coupling part (length along 22e-f, 24e-f), large cancellous screw threads (22e-f, 24e-f), large cortical screw threads (22a-d, 24a-d), small cancellous screw threads (recesses within 22e-f, 24e-f), small cortical screw threads (recesses within 22a-d, 24a-d), wherein there are more small cortical screw threads than small cancellous screw threads (see FIG. 4); wherein the respective leads of the large cortical

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and cancellous screw threads are equal (col. 3 / lines 16-28); wherein the root diameter of the cancellous bone coupling part is constant (see FIG. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bono et al. (US 6129730) in view of Mathys (US 5403136).

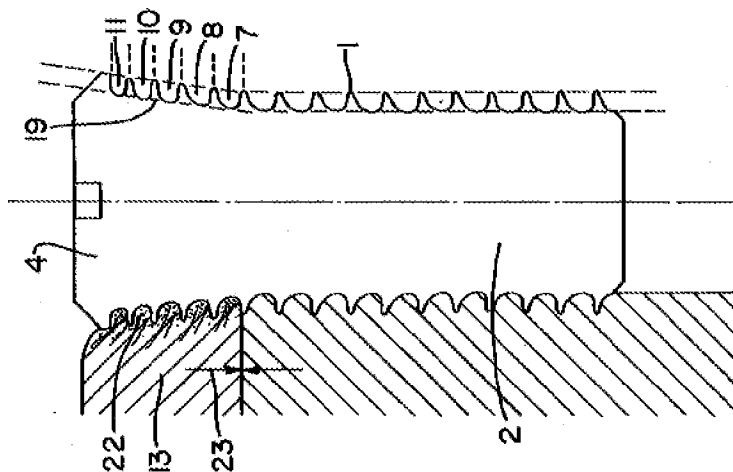


FIG. 4

Bono discloses a fixture (FIG. 4) with an uppermost part (28) and body part (18), the body part comprising a cortical bone coupling part (length along 22a-d, 24a-d), cancellous bone coupling part (length along 22e-f, 24e-f), large cancellous screw threads (22e-f, 24e-f), large cortical screw threads (22a-d, 24a-d), small cancellous

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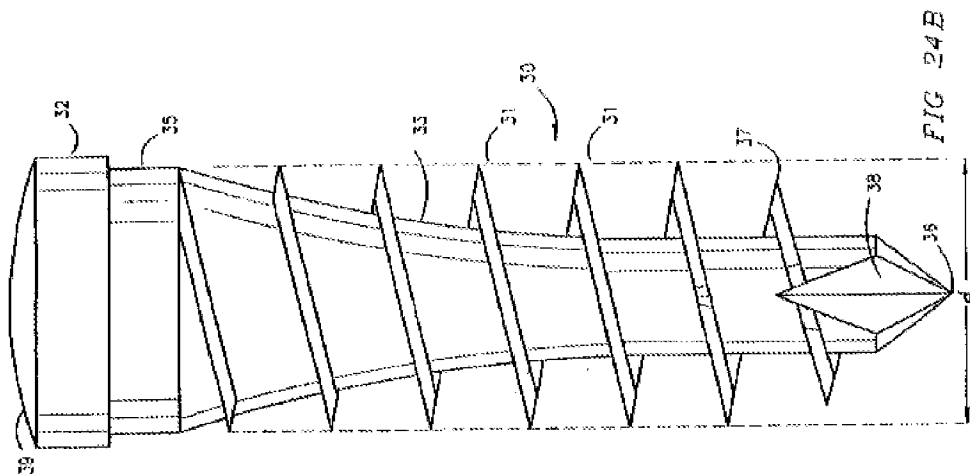
screw threads (recesses within 22e-f, 24e-f), small cortical screw threads (recesses within 22a-d, 24a-d).

Bono discloses the claimed invention except for small cortical screw thread having a pitch, a root diameter, and an outer diameter almost equal to a pitch, a root diameter, and an outer diameter of the small cancellous screw thread.

Mathys discloses a fixture (FIG. 4) wherein cortical screw thread has a pitch, a root diameter, and an outer diameter almost equal to a pitch, a root diameter, and an outer diameter of the small cancellous screw thread (col. 3 / lines 13-20) for the creation of locally differentiated intraosseous pressure.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified Bono with a fixture wherein cortical screw thread has a pitch, a root diameter, and an outer diameter almost equal to a pitch, a root diameter, and an outer diameter of the small cancellous screw thread in view of Mathys for the creation of locally differentiated intraosseous pressure.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bono et al. (US 6129730) in view of Michelson (US 2002/0045896).



Bono discloses the claimed invention except for a fixture wherein the root diameter of the large cortical screw thread is increased from a lower end thereof to an upper end thereof and is equal to a root diameter of the small cortical screw thread at the upper end thereof.

Michelson discloses a fixture wherein the root diameter of the large cortical screw thread is increased from a lower end thereof to an upper end thereof such that the root diameter will be equal to a root diameter of the small cortical screw thread within the upper end region thereof (FIG. 24B) for the reduction of stress risers within the bone screw system.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified Bono with a fixture wherein the root diameter of the large cortical screw thread is increased from a lower end thereof to an upper end thereof such that the root diameter will be equal to a root diameter of the small cortical screw thread within the upper end region thereof in view of Michelson for the reduction of stress risers within the bone screw system.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bono et al. (US 6129730) in view of Mathys (US 5403136) further in view of Taras et al. (US 2003/0158556).

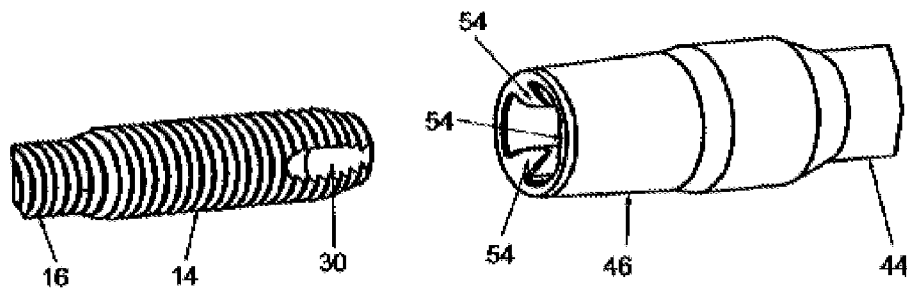


Fig. 5

Bono in view of Mathys disclose the claimed invention except for longitudinal grooves formed in a circumferential outer surface of the cortical bone coupling part.

Taras discloses a fixture with longitudinal grooves formed in a circumferential outer surface of the cortical bone coupling part (30, FIGS. 1&5, [0034]) for providing means for engaging the screw for removal.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified Bono in view of Mathys with a fixture with longitudinal grooves formed in a circumferential outer surface of the cortical bone coupling part in view of Taras for providing means for engaging the screw during removal.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bono et al. (US 6129730) in view of Taras et al. (US 2003/0158556).

Bono discloses the claimed invention except for longitudinal grooves formed in a circumferential outer surface of the cortical bone coupling part.

Taras discloses a fixture with longitudinal grooves formed in a circumferential outer surface of the cortical bone coupling part (30, FIGS. 1&5, [0034]) for providing means for engaging the screw for removal.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified Bono with a fixture with longitudinal grooves formed in a circumferential outer surface of the cortical bone coupling part in view of Taras for providing means for engaging the screw during removal.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bono et al. (US 6129730) in view of Michelson (US 2002/0045896) further in view of Taras et al. (US 2003/0158556).

Bono in view of Michelson disclose the claimed invention except for longitudinal grooves formed in a circumferential outer surface of the cortical bone coupling part.

Taras discloses a fixture with longitudinal grooves formed in a circumferential outer surface of the cortical bone coupling part (30, FIGS. 1&5, [0034]) for providing means for engaging the screw during removal.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified Bono in view of Michelson with a fixture with longitudinal grooves formed in a circumferential outer surface of the cortical bone coupling part in view of Taras for providing means for engaging the screw for removal.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL SCHAPER whose telephone number is (571)270-7413. The examiner can normally be reached on M-F, 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571)272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. S./
Examiner, Art Unit 3775

/Eduardo C. Robert/

Supervisory Patent Examiner, Art Unit 3733